

WOODY ORNAMENTAL AND SHELTER PLANTS FOR THE NORTH CENTRAL REGION

10-Year Report on Regional Plantings* of

Potentilla fruticosa L.

Irving, 'Jackman' PI 266619, 'Klondike'

This dwarf rosaceous shrub may be referred to as bush cinquefoil, shrubby Potentilla or fingerbush (from the German). It is known for its wide boreal distribution in parts of Asia, Europe and North America. Geographic ecotypes and horticultural selections are numerous and show wide variation in plant size, foliage and flowers. The plant is valued for its recurring bloom. This report included 10-Year regional trial data on three lots of bush cinquefoil.

Irving 1959-1968 This shrubby Potentilla was a chance seedling in the early 1950's from the E. J. Irving garden in Omaha, NB. Mrs. Fern Irving chose this plant for its color, compactness, and freedom from red spider when compared with other cinquefoil seedlings. Inter-State Nurseries, Hamburg, Iowa, gave 52 plants to 16 regional trial sites in 10 states.

'Jackman' PI 266619 A seedling selection of P. f. grandiflora Willd. Tall, erect growth more than 1 m. flowers yellow, 2.5 cm. across makes a good contrast between flowers and dark green leaves. This cultivar is a favorite in the Netherlands. First Class Certificate 1966 after trial at R. H. S. Gardens, Wisley, Surrey. Award of Garden Merit 1969. Origin in Jackman and Son Nursery, Woking, England about 1940. 79 plants furnished 23 sites in 10 midwestern states by Inter-State Nurseries, Hamburg, Iowa.

'Klondike' 1962-1971 A chance seedling of P. f. 'Farreri' with deeper yellow flowers and somewhat shorter leaves. Medium height 7-10 dm. Royal Boskoop Growers Assoc. Selection Committee rated this 3 star, excellent, origin in a Kruyt Bros. Nursery, Boskoop, Netherlands. Award of Merit 1965 after trial at R. H. S. Gardens, Wisley, Surrey. In limited trial in 5 states at 12 sites, 37 plants from Inter-State Nurseries, Hamburg, Iowa.

Considered to be a 'hardy' plant, dormant season winter injury was reported (See Table 1) at three locations for the two western European Potentilla selections being tested. Furthermore three plants of 'Klondike' growing at Brookings, SD were reported to have dead and dying branches, while four plants of this selection died at the Highmore, SD trial. No evident winter injury was reported for plants grown from the Irving selection. Thus this selection may be added to the list of those bush cinquefoil selections already known to be hardy throughout the North Central region. Observers at four trials reported chlorotic foliage which was associated with abnormally poorly developed plants.

Trials of three bush cinquefoil selections showed only one, the Irving, to be hardy throughout all trial locations. Alkali soils, high alkaline soils and soils with calcareous accumulations in the root zone cause chlorosis of bush cinquefoil foliage. Areas with these soils should be avoided when planting this rosaceous shrub.

* A regional testing program organized as a work plan under the North Central Regional Plant Introduction state-federal cooperative Project NC-7 Title: NC-7 "New Plants" -- The Introduction, Multiplication, Preservation, and Evaluation of New Plants for Industrial and Agricultural Utilization. Subtitle of work plan: Woody Ornamental and Shelter Plants for the North Central Region. This report concerns trial plantings of the NC-7 Ornamentals Subcommittee in: Illinois, Indiana, Iowa, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin.

TABLE 1

NC-7 Regional Trial of Ornamental Plants

10-Year Summary of: Potentilla fruticosa Irving 1959-1968

NC REGION	Site	Number	Loss	1st Yr* Plants	Injury	10th Yr. Size	Growth	10th Yr.**	Remarks
	Care	Planted	Alive	Factors	Growth Injured	Ht. Spread Shoot	Factors	Flowers Fruit	10th Yr. Growth
Ames, IA	CTSA	3	3	--	--	2.0 2.0 1.5	--	3 3	
Chaska, MN	CT/M	3	3	--	3	2.5 4.5 0.5	--	3 3	Moderate
Morris, MN	CT	3	3	--	0	2.9 4.9 0.2	--	3 3	Strong
Crookston, MN	CT	3	3	--	3	4.0 5.0 0.25	--	3 3	Strong
Lincoln, NB	SMM	3	3	--	3	2.0 1.5 0.1	323	3 3	Strong
No. Platte, NB	CT	3	3	--	2	2.0 2.5 0.5		3 3	Moderate
Scottsbluff, NB	SMM	3	3	--	3	1.25 1.5 --		1 1	Moderate
Fargo, ND	CT	2	1	025	--	2.0 1.8 0.4		3 3	Strong
Wooster, OH	SMM	1	1	--	--	2.0 3.3 2.0		3 3	Strong
Brookings, SD	CTSA	4	4	--	2	2.0 4.2 0.3		3 2	Moderate
Arlington, WI	CTSA	3	3	--	--	2.3 4.7 0.3		3 3	Strong
Madison, WI	CT	3	2	--	--	1.75 2.8 0.3		3 3	Strong

10-Year Summary of: Potentilla fruticosa 'Jackman'

									Remarks
Chaska, MN	CT	3	3	--	2	3	802	1.0 0.6 0.25	3 3 Moved to new site
Waseca, MN	CT	3	3	--		3	802 812	3.25 6.0 0.6	3 3
Crookston, MN	CT	3	3	--		0		4.0 4.0 0.4	3 3 Destroyed 6/71
Columbia, MO	CT	6	0	025					
Fargo, ND	CT	2	1	Unknown	3	0		4.0 5.0 0.4	3 3 Excel. dk. foliag
Brookings, SD	CTSA	4	4	--	3	0		4.0 4.6 0.4	3 3 Best to date
Highmore, SD	CT	4	4	--	3	4	193	2.0 2.3 0.9	3 3
Arlington, WI	CTSA	3	3	--		0		3.6 5.3 0.25	3 3 Excellent foliage

10-Year Summary of: Potentilla fruticosa 'Klondike' 1962-1971

Fargo, ND	CT	2	1	155,325	3	--		1.25 2.5 0.25	15,30,32	3 3
Brookings, SD	CTSA	4	4		3	4		2.9 3.1 0.3		3 3 Dead branches
Highmore, SD	CT	4	0	525	2					
Arlington, WI	CTSA	3	3			3	804	2.3 4.3 0.25		3 3 Foliage clean

CARE FACTORS RELATING TO PLANT LOSS, INJURY AND GROWTH

CT - Clean Tilled	Severity	Severity	* 1st Yr. Growth Rating
CTSA - Clean tilled with 02 Plants destroyed	5		1. Poorly
Sod Alley 15 Leaf sucking	5	80	2. Slowly
CT/M - Clean Tilled, Mulch 19 Rabbit	3	81	3. Readily
SMM - Sod, Mulch, Mowed 30 Alkali	3-5		
Severity 32 Alkaline Soil		52	

WINTER INJURYDELAYED LOSSES & INJURIES

**10th Yr. Flowers & Fruits

1. None
2. Few
3. Many

1. None
2. Slight
3. Moderate
4. Severe
5. Dead